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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,320

09/10/2004

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Q83497

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23373 7590 06/03/2009
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EXAMINER

VERDERAME, ANNA L

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

06/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/507,320	Applicant(s) KITANO ET AL.	
	Examiner ANNA L. VERDERAME	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-29 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-29 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed on 02/12/2009 has been carefully considered. A response is presented below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 25-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka et al. JP-11102542 in view of Matsuoka et al. JP-11-353709(Matsuoka '709) and Noguchi et al. US 5,942,578.

Matsuoka et al. teaches a laminate consisting of a release sheet and a second release sheet bonded to each other with a double sided adhesive sheet. A first disc substrate and a second disc substrate (16a and 16b) are prepared. The first disc substrate 16 a is composed of a substrate 15a and a recording layer 14a as shown in figure 3 and described at 0025(emphasis added). The first release sheet is peeled off from the laminate and the 1st disc substrate 16 a is bonded to the exposed adhesive surface of the double-sided adhesive sheet. Then the second release sheet is peeled off from the surface of the double-sided adhesive sheet opposite to the surface to which the 1st disc substrate 16a is bonded and the 2nd disc substrate 16b is bonded to the exposed adhesive surface of the double-sided adhesive sheet 11(abstract). The use of exfoliation sheets (release sheets) made from polyethylene, polyester, and

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polypropylene is disclosed at (0018). Benefits of using a double-sided adhesive sheet include reduced distortion and more precision in the thickness of the layer (0039-0041).

Release sheets undergo release mold processing (0035). Mold release processing is further described at (0019). The result of such processing is easier to remove sheets. See figure 2 where substrates 31 and 32 are adhered to one another via adhesive layer 1. The recording layers in this example are reflective layers (abstract, 0019, and 0016).

As taught above the photo-curable sheet is placed on the recording layer 14a of the first disc substrate 16a. It is known that optical disc recording layers consist of ROM recording layers consisting of a metallic reflective layer coated on a grooved substrate or a recording layer consisting of a protective layer, a phase change or organic recording layer, a second protective layer, and a reflective layer formed in that order on a grooved substrate. In both of these examples a reflective layer is exposed on the side of the substrate on which the recording layer has been provided. Therefore, in these examples when the adhesive layer is applied to the recording layer 14a the adhesive layer will be provided in contact with a reflective layer. The examiner has provided Matsuoka et al. JP-11-353709(Matsuoka '709) in support of this assertion.

Matsuoka '709 discloses adhering optical disc substrates using an adhesive sheet. Separators are provided on both sides of the adhesive sheet(abstract).

Noguchi et al. teaches a pressure sensitive adhesive composition which includes at least two energy beam curable copolymers having energy beam polymerizable groups in side chains thereof (abstract). A copolymer according this application is disclosed at

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(2/60-3/25). The substrate used for the adhesive sheet can be made of polyethylene, polypropylene etc(9/1-7). When UV rays are used to cure the adhesive a substrate film having a transmission of light having a wavelength from 300nm to 400 nm is at least 15% (9/16-20). The thickness of the adhesive layer is preferably from 5 to 50 micrometers(9/35-38). Use of a release sheet is disclosed at (9/32-34). In example 1 copolymer A1 and B1 and photopolymerization initiator C are combined (11/63-13/2). The release film is disclosed in the first paragraph of the specification as leaving little residue

The energy ray curable copolymer A has a molecular weight of at least 50,000 and a glass transition temperature of up to 20°C and preferably from -70°C to 0°C(5/33-40)(emphasis added).

The energy ray curable copolymer B has a molecular weight of at least 50,000 and a glass transition temperature of up to 20°C and preferably from -70°C to 0°C(6/25-31)(emphasis added).

With regard to surface roughness and light-transmittance in the range of 380-420nm of the photo-curable adhesive, the applicant has the burden of showing that a pressure sensitive UV-curable adhesive as taught in comparative example 2 of Kanai et al. and example 1 of Noguchi et al. does not possess these properties.

It would have been obvious to one of ordinary skill in the art to form the adhesive layer taught by Matsuoka et al. of a photopolymerizable pressure sensitive adhesive composition like that taught in example 1 of Noguchi et al. having a thickness of from 1-

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100 micrometers and more preferably from 5-50 micrometers based on the general teachings of adhesives by Matsuoka and based on the disclosure in Noguchi et al. to form adhesive layers having a thickness of from 1-100 micrometers and more preferably from 5-50 micrometers on to a substrate of for example polyolefin or polypropylene and to optionally provide a release layer on the adhesive layer in Noguchi et al. at (9/32-34).

Further, it would have been obvious to have the recording layer 14a taught by Matsuoka '542 be a reflective layer based on the example of Matsuoka '709 and with a reasonable expectation of success.

Response to Arguments

The examiner has added the teachings of Matsuoka et al. JP-11-353709(Matsuoka '709) to show that the recording layer 14a of Matsuoka et al. JP-11102542(Matsuoka '542) can be a reflective layer and thus would meet the limitation of amended claim 1 which requires the photo-curable transfer sheet be disposed on a reflective layer.

The applicant states that the pressure sensitive adhesive composition of Noguchi includes at least two energy curable copolymers having energy polymerizable side chains. The applicant also states that when UV rays are used to cure the adhesive of Noguchi a substrate film having a transmission of light having a wavelength of from 300 nm to 400 nm is at least 15%.

Disposal of the photo-curable transfer sheet on a reflective layer, which is not taught by Noguchi, is taught by Matsuoka '709.

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With respect to the glass transition temperature applicant has not specified whether the glass transition temperature claimed is that before curing or after curing. Further, as stated by the applicant on page 5 of the response the T_g of Noguchi's polymer is between -47°C to -15°C after curing. This falls in the range of not more than 20°C recited in instant claim 26. The examiner points to the section of the applicant's specification which recites that "Especially, in the case of the glass transition temperature of 15° to -50° the properties of following exactly the uneven surface of the stamper is further improved"(0178) A glass transition temperature of -47°C to -15°C as disclosed by Noguchi falls within this preferred range.

The limitations of claims 26 and 32 which require that the homopolymer or copolymer have a glass transition temperature of not more than 20°C or a glass transition temperature of from 0°C to 20°C are met by the disclosure found in Noguchi et al. at (5/33-40) and (6/25-31).

Applicant's arguments in the final paragraph on page 5 are confusing. Noguchi et al. discloses provision of release sheets which protect and allow for the transfer of the adhesive sheet. Noguchi et al. discloses use of the adhesive sheet for bonding. Noguchi et al. teaches a composition for an adhesive sheet and Matsuoka et al. '542 and '709 disclose use of an adhesive sheet in an optical disc manufacturing method.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNA L. VERDERAME whose telephone number is (571)272-6420. The examiner can normally be reached on M-F 8A-4:30P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571)272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/

Supervisory Patent Examiner, Art Unit 1795

/Anna L Verderame/

Examiner, Art Unit 1795